3-AXIS Vandal proof IR Dome Camera

User manual

Thanks for purchasing our product. Before operating the unit, please read the instructions carefully and keep this manual for future reference.

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Safety Warnings

1. Read this manual carefully before installing the unit

Please read this manual first for correct installation and operation.

2. Never install the camera on a ceiling that cannot hold its weight

The product may fall down and cause damages.

3. Never install the camera near electric or magnetic fields

Install the camera away from TV, radio transmitter, magnet, electric motor, transformer, audio speakers since the magnetic fields generate from above devices would distort the video image.

4. Never install or use the camera in areas exposed to water, oil or gas

The water, oil or gas may result in operation failure, electric shock or fire. Do not use this unit near water-for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, near a swimming pool, in an unprotected outdoor installation, or any area which is classified as a wet location.

5. Never face the camera toward the sun

Direct sunlight or severe ray may cause fatal damage to sensor and internal circuit.

6. Power Cord Protection

Touching the wet power cord with hands or touching the power cord with wet hands may result in electric shock. Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, playing particular attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.

7. Attachments

Do not use attachment not recommended by the product manufacturer as they may cause hazards.

8. Object and Liquid Entry

Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind onto the product.

9. Do not operate the camera in environments where the temperature, humidity or power source is beyond the specified ones

Use the camera in suitable environments where the temperature is within -10°C~50°C and humidity below 90%. Use the input power source as the specifications listed.

10. Cleaning

Unplug the unit from the outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

11. Never disassemble the camera nor put impurities in it

Disassembly or impurities may result in trouble or fire.

12. Stop using when the product emits smoke or abnormal heat

13. Servicing

Do not attempt to repair this unit yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

14. Retain Instructions

THE SAFETY AND OPERATING INSTRUCTIONS SHOULD BE RETAINED FOR FUTURE REFERENCE.

Warranty

Tailand Products are covered under warranty for one year from the date of purchase. The warranty will automatically be voided if any of the following occurs:

1. Camera sticker is removed

If the camera sticker is removed, we will not be able to confirm any information regarding when and where the product was purchased. We have no other way to verify the purchase record without the serial number on the camera sticker; therefore, it should not be removed.

2. Camera is modified in any way

If the camera is scratched, damaged, or modified in a manner not described in this manual, the warranty will be voided immediately. It is the customer's responsibility to keep the camera in good condition.

3. Video or power cable is cut

The video cable and the power cable should not be tampered with. Cutting or modifying of the cables will result in termination of the warranty.

NOTE:

The information in this manual was up-to-date when published. The manufacturer reserves the right to revise and improve its products. All specifications are therefore subject to change without notice.

1. Introduction

This camera built with Sony's latest image processor, this super-wide dynamic camera has the capability of achieving resolutions of over 650 TVL. The features include 2D noise reduction, spot removal, strong-light suppression, intelligent motion detection and OSD functions.

1.1. Main Features

➢ 1/3" Sony CCD
➢ Sony Effio-E DSP
➢ Color: 650 TVL
➢ 0.5 Lux at F1.2
➢ Multi-Language OSD Control
➢ Anti-Headlight (HLC)
➢ 2D Noise Reduction
➢ High Contrast Images
➢ Ideal for Backlight Environments
➢ Mosaic Privacy Mask
➢ Advanced Motion Detection Function
➢ Picture Quality Adjustable (Contrast/Sharpness/Hue/Gain)
➢ Water Resistance: IP66 ;
➢ 12V DC

1.2. Content List

➢ One (1) camera with video/power cable
➢ Two (2) Mounting Screws
➢ One (1) DC Male Connector
➢ One (1) Cleaning Cloth
➢ One (1) Warning Sign Sticker
➢ One (1) User Manual
➢ One (1) CD

* For any returns, please include all components listed above with original packaging in **Resalable Condition**. **Absolutely No Returns** will be accepted if any component is missing/damaged or if any cable is cut or tampered with.

1.3. Specifications

Power Supply	
Power	DC12V ±10%Max
VIDEO	
Image Pick-up Device	1/3 inch Sony CCD
Total Pixels	PAL:752(H)*582(V) NTSC: 768(H)*494(V)
Resolution	650TV Lines(Color)/700TV Lines(B/W)
Minimum Illumination	0.5 Lux at F1.2
Wide Dynamic Range	52dB
Video Output	1.0Vp-p Composite, 75Ω ; BNC
S/N Ratio	More than 50dB(AGC Correct OFF)
IR LED ; **Working Distance**	20units (IR LEDs on <0 Lux, IR LEDs off >5 Lux) ; Outdoor: 20m
Menu	OSD Control
Sync. Mode	Internal
Electronic Shutter	AUTO (1/50(60)~1/100,000sec.) /MANUAL: 1/50(60), FL 1/120(100), 1/250, 1/500, 1/1,000, 1/2,000,1/4,000, 1/10,000sec
AGC	AUTO (4 Steps)
White Balance	ATW / PUSH / USER1 / USER2 / ANTI CR /MANUAL / PUSH LOCK
Back Light Compensation	HLC / BLC / OFF
Dynamic Noise Reduction	2D
Language	ENGLISH /CHINESE
Motion Detection ; Privacy	ON / OFF (4 Zones) ; ON / OFF (4 Zones Programmable, Mosaic)
Iris Control	DC IRIS
Lens Mount	C/CS
Lens	F4 mm~9mm / F1.2
Water Resistance	IP66
Operation Temperature	-10~50°C
Humidity Range	-20~60°C
Dimension	∅112×110（H）mm
Weight Approx	910g

2. Camera Overview

2.1. Dimensions
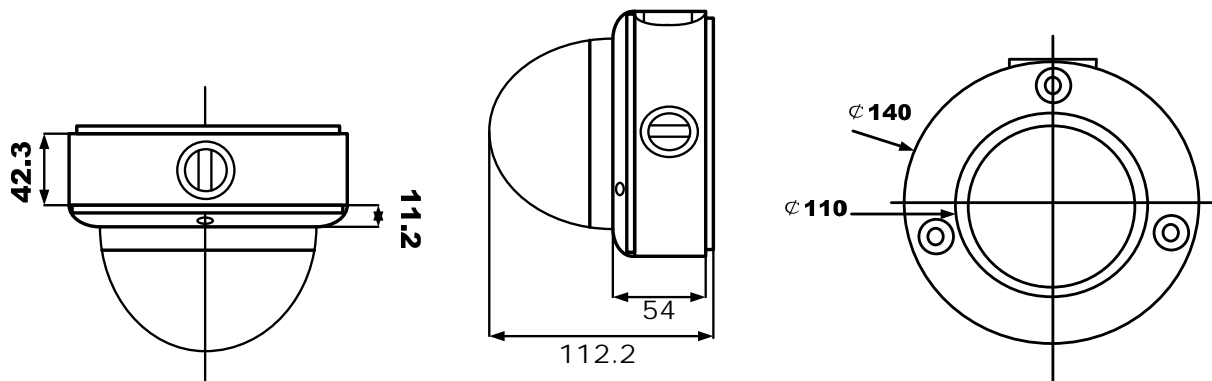
2.2. Lens adjust

To turn the screws and then adjust the lens (foucus/zoom)
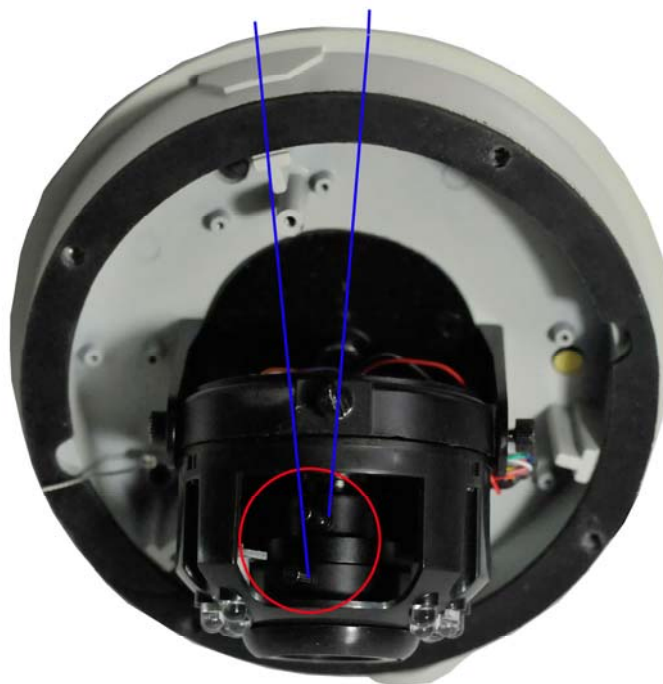
2.3. 3-AXIS description

To turn loose 4 screws and then to adjust the lens direction
(Up/Down and Right/Left)
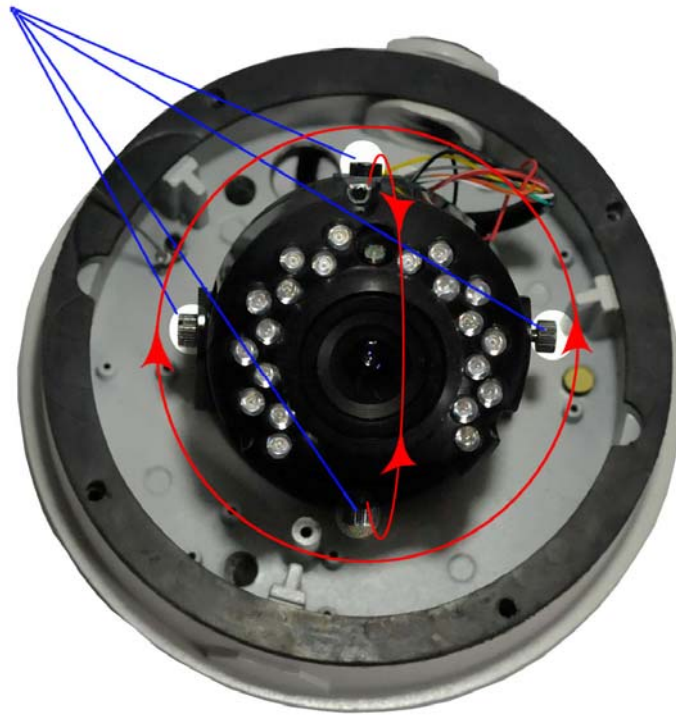
To turn loose this screw and

then to adjust the direction
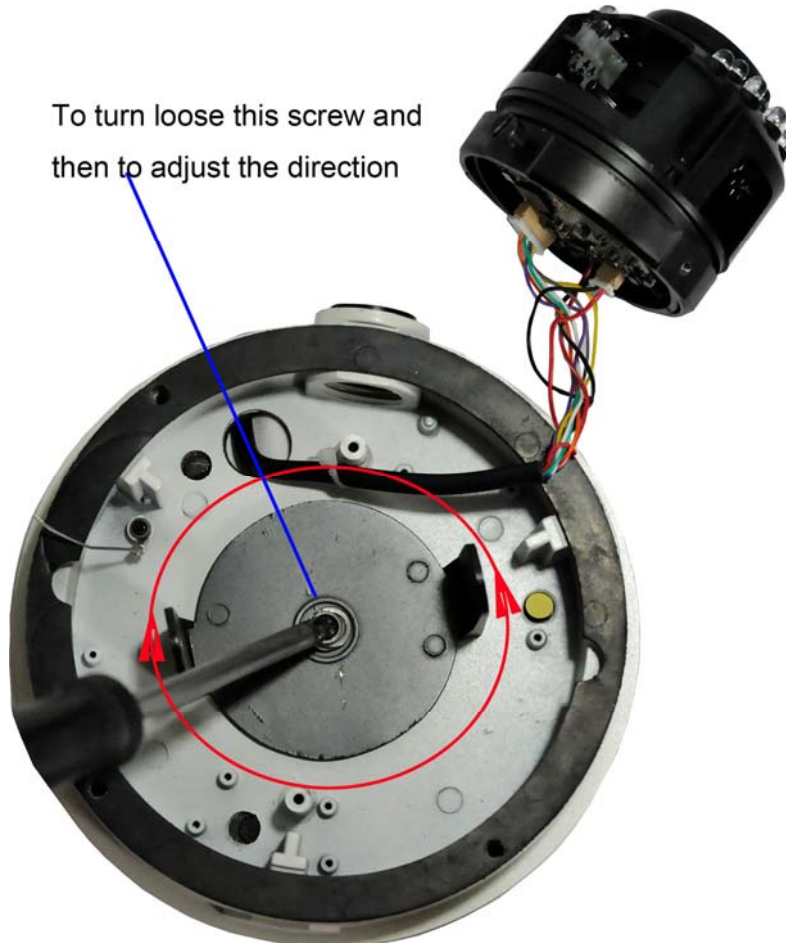
3. OSD Operation

3.1. OSD Control Buttons
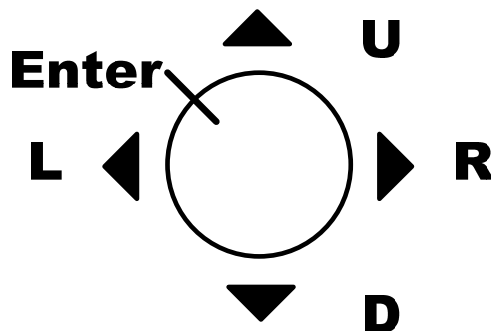
➢ **U (UP)**
    Use this button to move the cursor upwards to the desired item.
➢ **R (RIGHT)**
    Use this button to move the cursor to the right to select or to adjust the parameters of the selected item. The parameter increases when the right button is pressed.
➢ **D (DOWN)**
    Use this button to move the cursor downwards to the desired item.
➢ **L (LEFT)**
    Use this button to move the cursor to the left to select or to adjust the parameters of the selected item. The parameter decreases when the left button is pressed.
➢ **ENTER**
    Use this button to display the main menu, to confirm and to enter the submenus when they're available. Items with the symbol "↵" in the end contain sub-menus. For further settings of those items, select the desired item with the button   or   and press the ENTER button to bring up the sub-menu and edit.

3.2. OSD Operation
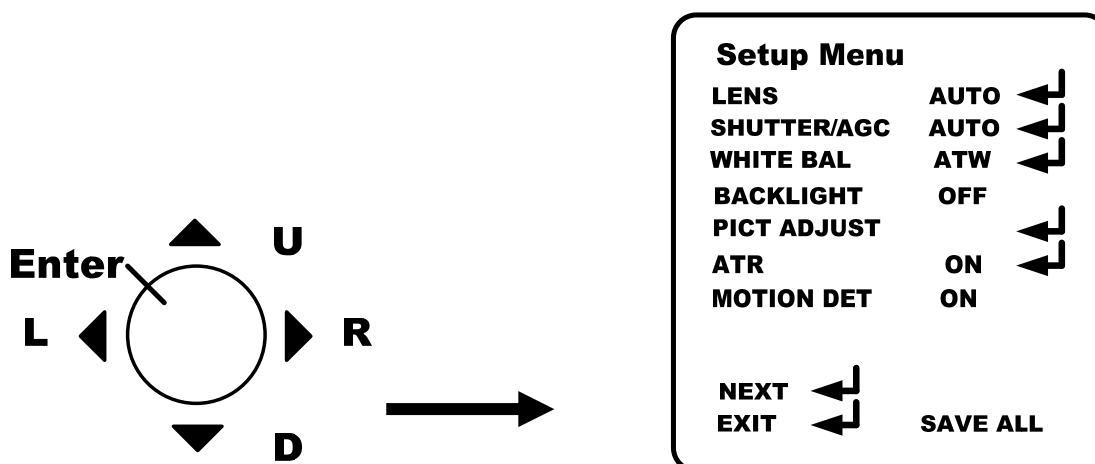
1. Start to operate the OSD menu
    Press the **ENTER** button to bring up the OSD main menu to start operating OSD menus.
2. Select items with the cursor buttons

Use buttons ▲ and ▼ to move the cursor up and down.

Use buttons ◀ and ▶ to switch the modes or to adjust the parameters or the values of the settings.

3. Switch to the sub-menu

Items with the symbol "↵" in the end contain sub-menus. For further settings of those items, select the desired item with the button ▲ or ▼ and press the **ENTER** button to bring up the sub-menu and edit.

```
     Setup Menu
  LENS          AUTO  ↵
  SHUTTER/AGC   AUTO  ↵
  WHITE BAL     ATW   ↵
  BACKLIGHT     OFF
  PICT ADJUST         ↵
  ATR           ON    ↵
  MOTION DET    ON


  NEXT  ↵
  EXIT  ↵       SAVE ALL
```

```
     AUTO IRIS


  TYPE      DC

  MODE      AUTO

  SPEED   [IIII|IIIIIIII]  080




  RETURN  ↵
```
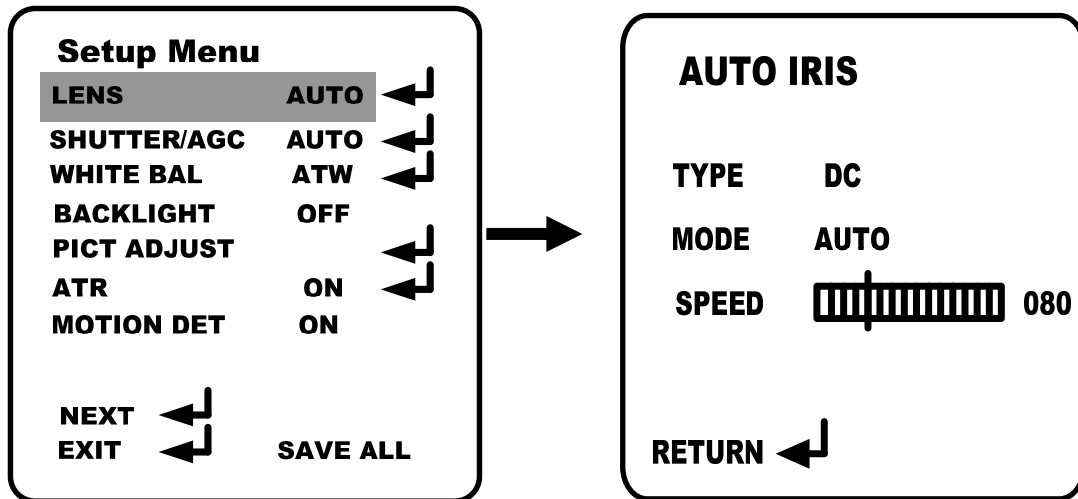
| Main menu | Sub-menu |

4. Return to the previous page

Select **RETURN** and press the **ENTER** button to return to the previous page.

5. Exit the OSD menu

Select **EXIT** with the button   or   and press the **ENTER** button to exit the OSD menu.

4. Configuration

4.1. LENS

When the **SETUP MENU** is displayed on the screen, use buttons ▲ and ▼ to select the **LENS** and press the **ENTER** button to do further settings.

```
┌─────────────────────────┐        ┌─────────────────────────┐
│  Setup Menu             │        │                         │
│  LENS          AUTO ◄┘  │        │   AUTO IRIS             │
│  SHUTTER/AGC   AUTO ◄┘  │        │                         │
│  WHITE BAL     ATW  ◄┘  │        │  TYPE     DC            │
│  BACKLIGHT     OFF      │        │                         │
│  PICT ADJUST        ◄┘  │   →    │  MODE     AUTO          │
│  ATR           ON   ◄┘  │        │  SPEED  ▐||||||||||| 080 │
│  MOTION DET    ON       │        │                         │
│                         │        │                         │
│  NEXT  ◄┘               │        │                         │
│  EXIT  ◄┘      SAVE ALL │        │  RETURN ◄┘              │
└─────────────────────────┘        └─────────────────────────┘
```

| Main menu | Sub-menu |
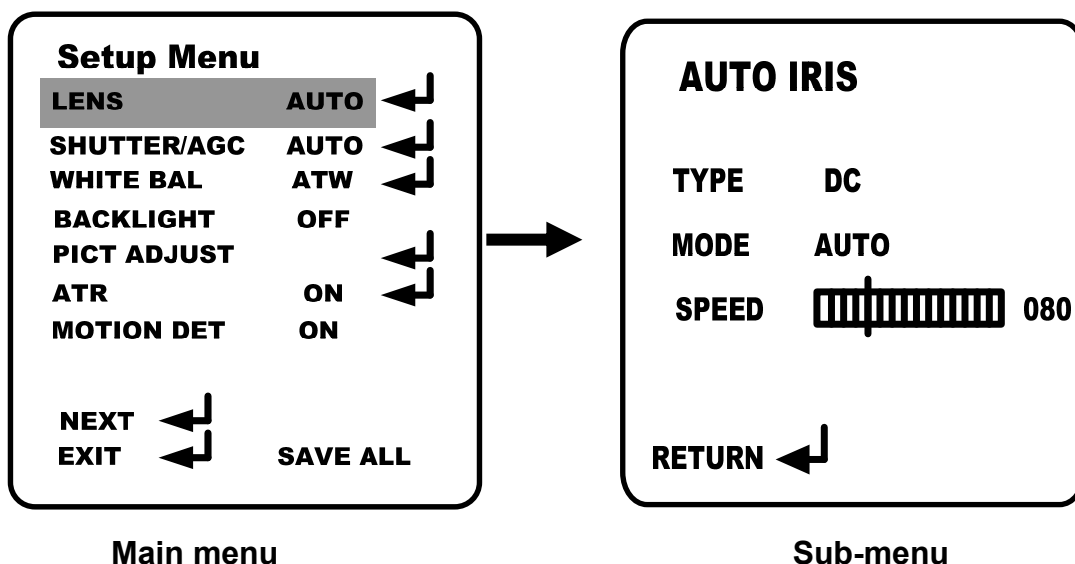
Select to set the mechanical iris of the lens.

Function	Option
Lens	**Manual**
	Auto ◄┘

➢ **MANUAL**

   Auto electronic shutter

➢ **AUTO**◄┘

   Auto electronic shutter + Mechanical auto IRIS When **AUTO**◄┘ is selected, click **ENTER** to bring up the **AUTO IRIS**

4.1.1. AUTO IRIS

Adjust the settings of the **AUTO IRIS**

Function	Option
TYPE	**DC Video**
MODE	**OPEN/CLOSE/AUTO**
SPEED	**0~255**

➢ *TYPE*

   Select to set the type of the mechanical iris.

   - **DC:** DC Lens.

   - **VIDEO:** VIDEO Lens

➢ **MODE**

   Select to set the type of control to be exercised over the mechanical iris.

   - **OPEN:** The mechanical iris is fixed to open.

   - **CLOSE:** The mechanical iris is fixed to close.

   - **AUTO:** The mechanical iris is controlled automatically.

➢ **SPEED**

   Select to set the convergence speed of the mechanical iris.

4.2. SHUTTER/AGC

When the **SETUP MENU** is displayed on the screen, use buttons ▲ and ▼ to select the **SHUTTER/AGC** and press the **ENTER** button to do further settings.

```
┌─────────────────────────────┐
│  Setup Menu                 │
│  LENS          AUTO  ◄┘      │
│  SHUTTER/AGC   AUTO  ◄┘      │
│  WHITE BAL     ATW   ◄┘      │
│  BACKLIGHT     OFF          │
│  PICT ADJUST         ◄┘      │
│  ATR           ON    ◄┘      │
│  MOTION DET    ON           │
│                             │
│  NEXT  ◄┘                   │
│  EXIT  ◄┘      SAVE ALL      │
└─────────────────────────────┘
```
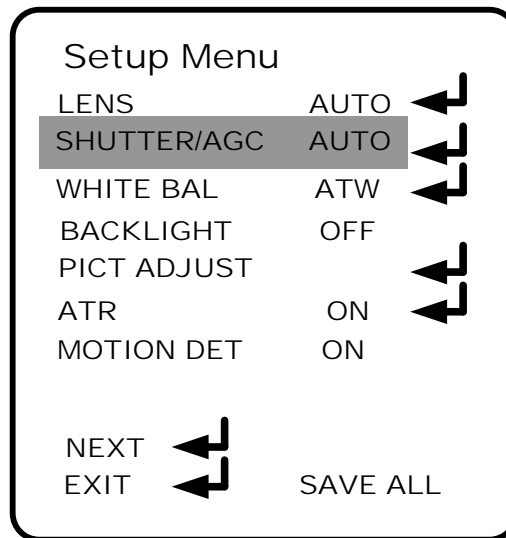
Select to set Auto exposure or Manual exposure.

Function	Option
Shutter/AGC	**Auto** ↵ **Manual**↵

➢ **AUTO↵ :**

When **AUTO↵** is selected, click **ENTER** to bring up the *AUTO SETUP* sub-menu for further settings.

➢ **MANUAL↵ :**

When **MANUAL↵** is selected, click **ENTER** to bring up the *MANUAL SETUP* sub-menu for further settings.

4.2.1. AUTO SETUP

Adjust the settings of the **AUTO SETUP**

Function		Option
HIGH LUMINANCE	**MODE**	**SHUT+AUTO IRIS** **AUTO IRIS ***
	BRIGHTENSS	**0~255**
LOW LUMINANCE	**MODE**	**AGC** **OFF**
	BRIGHTENSS	**x0.25 ; x0.50 ; x0.75 ; x1.00**

HIGH LUMINANCE

➢ **MODE**

Select to specify AE control on the medium- and high-brightness side.

SHUT + AUTO IRIS

Auto electronic shutter + Mechanical auto IRIS

AUTO IRIS

Shutter fix + Mechanical auto IRIS

NOTE:

If **MANUAL** has been selected as the **LENS** function setting, **SHUT** will be displayed, and the settings made in this section will not take effect.

➢ **BRIGHTNESS**

Select to specify the high- and medium-brightness side reference.

The brightness changes depending on whether the **ATR** function is **ON** or **OFF**, and whether the **CRS** mode has been selected as the **AWB** function.

Please note that the brightness will change when **ATR** or **WHITE BAL** is set to **ANTI CR** (CRS mode), etc., after **BRIGHTNESS** has been set.

➢ **LOW LUMINANCE**

MODE

Select to specify AE control on the low-brightness side.

OFF

OFF

AGC

Auto gain control

BRIGHTNESS

Select to specify the low-brightness side reference

4.2.2. MANUAL SETUP

Adjust the settings of the **MANUAL SETUP**.

Function	Option
MODE	SHUT+AGC
SHUTTER	1/60 ; 1/100 ; 1/250 ; 1/500 ; 1/1000 ; 1/2000 ; 1/4000 ; 1/10000
AGC	6.00 ; 12.00 ; 18.00 ; 24.00 ; 30.00 ; 36.00 ; 42.00 ; 44.80

➢ *MODE*
"**SHUT+AGC**" is the only option available for the ME operation mode. There are no other options.
➢ *SHUTTER*
Select to set the ME shutter speed (in fractions of a second).
➢ *AGC*
Select to set the *AGC* value for ME.

4.3. WHITE BAL(White Balance)

The screen color can be adjusted by using the **WHITE BAL** function.
1. Please use the ▲ and ▼ buttons to **WHITE BAL** on the **SETUP MENU** and press the **ENTER** button to do further settings.
2. Please select the desired item and press   and   buttons to adjust the settings.

```
┌─────────────────────────────┐
│  Setup Menu                 │
│  LENS            AUTO  ◢◣    │
│  SHUTTER/AGC     AUTO  ◢◣    │
│  WHITE BAL       ATW   ◢◣    │
│                             │
│  BACKLIGHT       OFF        │
│  PICT ADJUST          ◢◣    │
│  ATR             ON   ◢◣    │
│  MOTION DET      ON         │
│                             │
│                             │
│   NEXT  ◢◣                  │
│   EXIT  ◢◣    SAVE ALL      │
└─────────────────────────────┘
```
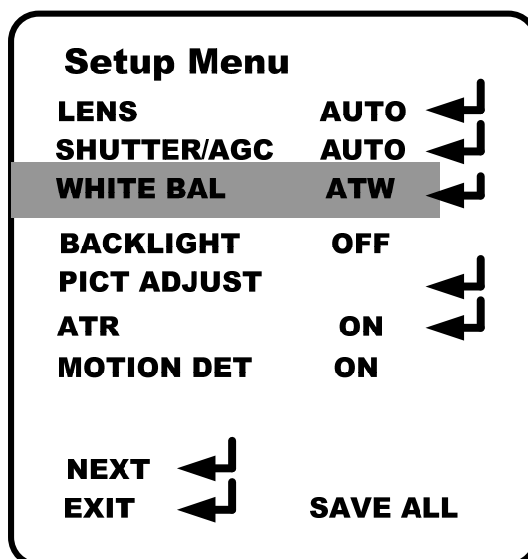
Select to set the white balance Mode.

Function	Option
WHITE BLC	ATW PUSH USER1 USER2 ANTI CR MANUAL PUSH LOCK

➢ **ATW (Auto Trace White balance)**
    When **ATW**↵ is selected, click **ENTER** to bring up the *ATW* sub-menu for further settings.
➢ **PUSH: All pull-in**
    Select to set the white balance mode to the **PUSH** mode.
➢ **USER1: Fluorescent light fixed gain (3200K)**
    When **USER1**↵ is selected, click **ENTER** to bring up the *USER1 WB* sub-menu for further settings.
➢ **USER2: Outdoor fixed gain (6300K)**
    When **USER2**↵ is selected, click **ENTER** to bring up the *USER2 WB* sub-menu for further settings.
➢ **ANTI CR: Color rolling suppression**
    Select to set the white balance mode to the **ANTI CR** mode.
➢ **MANUAL: Manual white balance**
    When **MANUAL**↵ is selected, click **ENTER** to bring up the *MANUAL WB* sub-menu for further settings
➢ **PUSH LOCK**
    Select to set the white balance mode to the **PUSH LOCK** mode

4.3.1. ATW (Auto Trace White Balance)

Adjust the settings of the **ATW**.

Function	Option
SPEED	0~255
DELAY CNT	0~255
ATW FRAME	x0.50 ; x1.00 ; x1.50 ; x2.00
ENVIRONMENT	INDOOR ; OUTDOOR

➢ *SPEED*
    Select to adjust the pull-in speed of ATW.
➢ *DELAY CNT*
    Select to set the time-based hysteretic of ATW.
➢ *ATW FRAME*

Select to set the pull-in frame magnification.

➢ *ENVIROMENT*

Select to set the pull-in frame (indoor/outdoor) of ATW.

4.3.2. PUSH

Select to allow the camera automatically adjust the white balance under all conditions.

4.3.3. USER1

The gain values for the fluorescent light fixed mode are used as the adjustment items of **USER1 WB** on the internal OSD menu.

Function	Option
B-GAIN	**0~255**
R-GAIN	**0~255**

➢ *B-GAIN*

Used for operating the B gain in the WB fixed gain mode.

➢ *R-GAIN*

Used for operating the R gain in the WB fixed gain mode.

4.3.4. USER2

The gain values for the outdoor fixed mode are used as the adjustment items of **USER2 WB** on the internal OSD menu.

Function	Option
B-GAIN	**0~255**
R-GAIN	**0~255**

➢ *B-GAIN*

Used for operating the B gain in the WB fixed gain mode.

➢ *R-GAIN*

Used for operating the R gain in the WB fixed gain mode

4.3.5. MANUAL WB (Manual White Balance)

The B and R gain values for manual WB are set on this screen.

Function	Option
LEVEL	**0~255**

➢ *LEVEL*

Select to set the B and R gain values for **MANUAL WB**.

By incrementing or decrementing the B gain value, the R gain value is also adjusted in tandem。

> **NOTE**:
>   If **MANUAL** has been selected as the *LENS* function setting, **SHUT** will be displayed, and the settings made in this section will not take effect.

4.3.6.   PUSH LOCK

   To find the optimal setting for the current luminance environment in this mode, point the camera towards a sheet of white paper and press the **ENTER** button.
   Whenever the condition changes, readjust it.

> **ATTENTION**:
>   The white balance can not fully function under the following conditions. Please select *PUSH LOCK* Mode when the following occurred.
> - When there's a higher temperature surrounded the object.
> - When there's darkness surrounded the object.
> - When there's a fluorescent light surrounded the object or where the light changes all the time.

4.4.   BACKLIGHT

   This item is used to set the backlight compensation operation.
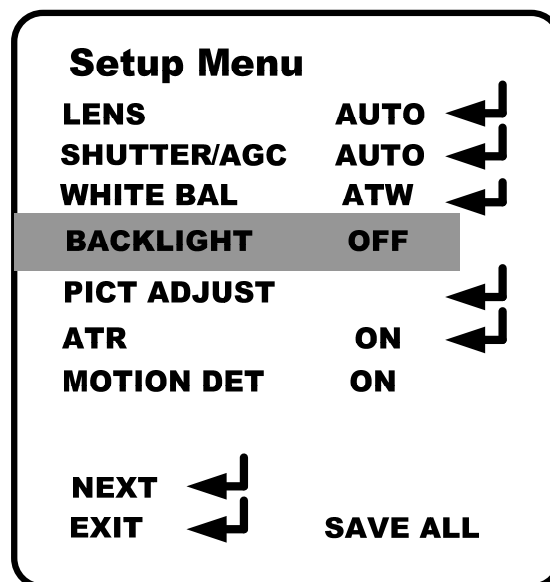
Select to set **BACKLIGHT** to **OFF**, **BLC** or **HLC**.

Function	Option
BACKLIGHT	OFF
	BLC
	HLC

➢ **OFF**

Backlight compensation OFF.

➢ **BLC**

Backlight compensation ON.

➢ **HLC**

HLC(Headlight compensation) function ON.

4.5. PICT ADJUST

This item is used to set the PICT ADJUST function

```
Setup Menu
LENS            AUTO  ⏎
SHUTTER/AGC     AUTO  ⏎
WHITE BAL        ATW  ⏎
 BACKLIGHT       OFF
PICT ADJUST           ⏎

ATR              ON   ⏎
MOTION DET       ON


 NEXT   ⏎
 EXIT   ⏎        SAVE ALL
```
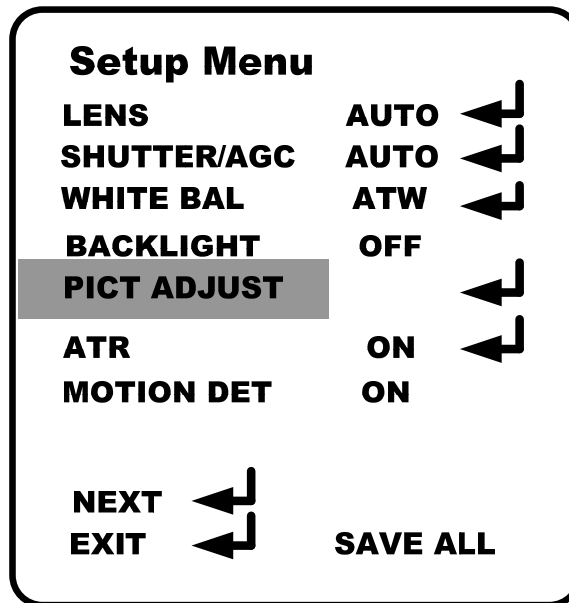
Select to bring up the **PICT ADJUST** sub-menu for further settings

Function	Option
MIRROR	OFF
	ON
BRIGHTNESS	0~255
CONTRAST	0~255
SHARPNESS	0~255
JIE	0~255
GAOM	0~255

➢ **MIRROR**

*Sele*ct to set the horizontal flip for the display output.

OFF: Normal output

ON: Horizontally flipped output

➢ **BRIGHTNESS**

*S*elect to set the screen brightness.

➢ **CONTRAST**

*S*elect to set the screen contrast.

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- ➢ **SHARPNESS**

    *S*elect to set the screen sharpness.
- ➢ **HUE**

    *S*elect to adjust the hue.
- ➢ **GAI**

    *S*elect to adjust the color gain.

4.6. ATR

This item is used to set the Day/Night function.

Setup Menu

LENS	AUTO	◄┘
SHUTTER/AGC	AUTO	◄┘
WHITE BAL	ATW	◄┘
BACKLIGHT	OFF	◄┘
PICT ADJUST		◄┘
ATR	ON	◄┘
MOTION DET	ON	
NEXT	◄┘	
EXIT	◄┘	SAVE ALL
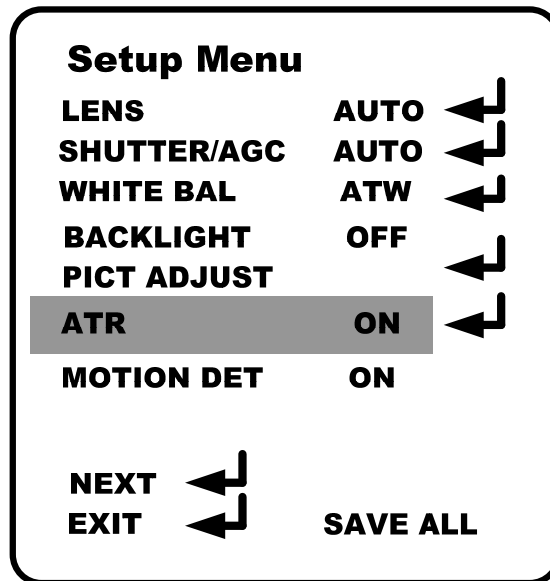
Select to set **ATR** to **OFF** or **ON**.

Function	Option
LUMINANCE	LOW
	MID
	HIGH
CONTRAST	LOW
	MIDLOW
	MID
	MIDHIGH
	HIGH

- ➢ **OFF**

    ATR OFF
- ➢ **ON**

    ATR ON: When **ON**↵ is selected, click **ENTER** to bring up the *ATR* sub-menu for further settings.

4.6.1. ATR ON

- ➢ **LUMINANCE**

    Select to set the extent of the luminance compression.

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➢ **CONTRAST**
  Select to set the extent of the contrast enhancement.

4.7. MOTION DET (Motion Detection)

This item is used to set the Motion Detection function

```
┌──────────────────────────────────────┐
│  Setup Menu                          │
│  LENS           AUTO  ◄┘              │
│  SHUTTER/AGC    AUTO  ◄┘              │
│  WHITE BAL      ATW   ◄┘              │
│   BACKLIGHT      OFF                  │
│  PICT ADJUST          ◄┘             │
│  ATR            ON    ◄┘              │
│ ████████████████████████████████     │
│  MOTION DET     ON                   │
│ ████████████████████████████████     │
│                                      │
│    NEXT    ◄┘                        │
│    EXIT    ◄┘      SAVE ALL           │
│                                      │
└──────────────────────────────────────┘
```
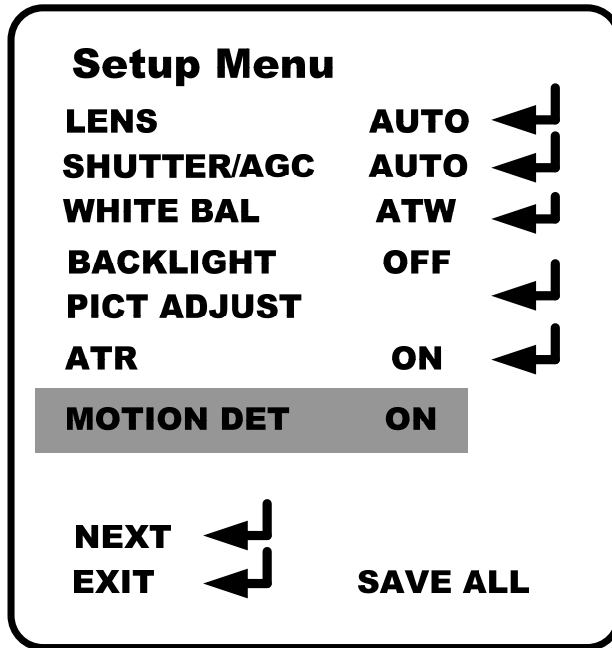
Select to set motion detection to **OFF** or **ON**.

Function	Option
MOTION DET	**OFF**
	ON↵

➢ *OFF*
  Motion detection OFF
➢ *ON:*
  Motion detection ON
  When **ON**↵ is selected, click **ENTER** to bring up the **MOTION DET** sub-menu for further
settings.

4.7.1. MOTION DET ON

Adjust the settings of *MOTION DET*.

Function	Option
DETECY SENSE	0~127
BLOCK DISP	OFF ON ENABLE
MONITOR AREA	OFF ON
AREA SEL	1/4 ; 2/4 ; 3/4 ; 4/4
TOP	000-244 (NTSC) ; 000-288 (PAL)
BOTTOM	000-244 (NTSC) ; 000-288 (PAL)
LEFT	000-474 (NTSC) ; 000-468 (PAL)
RIGHT	000-474 (NTSC) ; 000-468 (PAL)

➢ **DETECT SENSE**
   Select to set the motion detection sensitivity.
➢ **BLOCK DISP**
   Select to control the ON/OFF status of the motion detection block display.
      OFF: No display
      ON: Luminance highlighted
➢ **MONITOR AREA**
   Select to set whether to use the monitoring frames.
      OFF: The monitoring frames are not used.
      ON: The monitoring frames are used.
➢ **AREA SEL**
   Select to define the monitoring frame to be set.
➢ **TOP/BOTTOM/LEFT/RIGHT**
   Select to set the monitoring frame selected with the AREA SEL function.

4.8. PRIVACY

This item is used to set up to eight privacy masks. When monitoring frames are used for motion detection, the maximum number of masks which can be used is four.

```
┌──────────────────────────────────┐
│  Setup Menu                      │
│  ┌────────────────────────────┐  │
│  │ PRIVACY          OFF       │  │
│  └────────────────────────────┘  │
│    DAY/NIGHT      AUTO    ↵       │
│    NR                     ↵       │
│    CAMERA ID      OFF            │
│    SYNC           INT           │
│    LANGUAGE       ENGLISH        │
│     CAMERA RESET                 │
│                                  │
│    BACK     ↵                   │
│    EXIT     ↵       SAVE ALL     │
└──────────────────────────────────┘
```
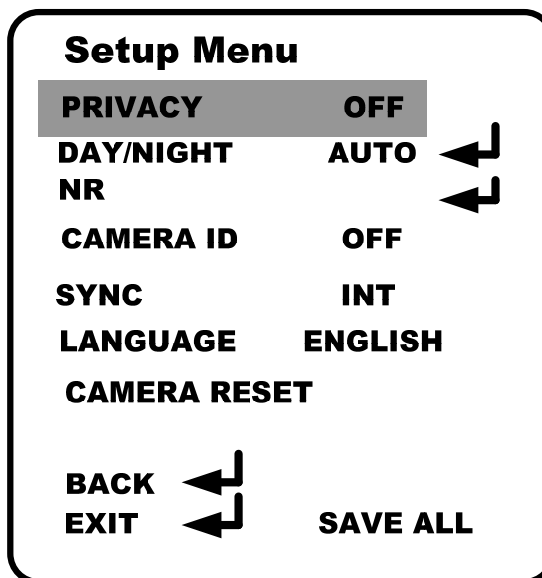
Select to set the masks to **OFF** or **ON**.

Function	Option
PRIVACY	**OFF**
	ON↵

When **ON**↵ is selected, click **ENTER** to bring up the **PRIVACY** sub-menu for further settings.

4.8.1. PRIVACY ON

Adjust the settings of **PRIVACY**.

Function	Option
AREA SEL	**1/4 ; 2/4 ; 3/4 ; 4/4 ;**
TOP	**000-244 (NTSC) ; 000-288 (PAL)**
BOTTOM	**000-244 (NTSC) ; 000-288 (PAL)**
LEFT	**000-474 (NTSC) ; 000-468 (PAL)**
RIGHT	**000-474 (NTSC) ; 000-468 (PAL)**
COLOR	**1~8**
TRANSP	**0.00 ; 0.50 ; 0.75 ; 1.00**
MOSAIC	**OFF**
	ON

➢ *AREA SEL*
Select to set the mask frame to be adjusted.

┌──┐
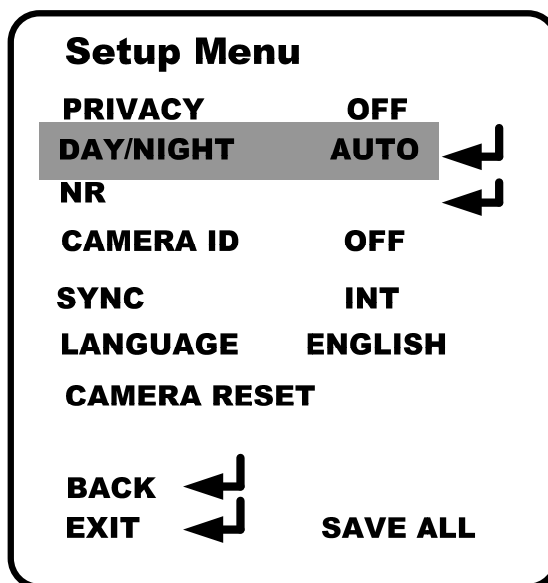│ **NOTE**:   │
│   When **MONITOR AREA** has been set to **ON** by the **MOTION DET** setting, four │
│ frames--1/4, 2/4, 3/4 and 4/4--are selected.   │
└──┘

- ➢ **TOP/BOTTOM/LEFT/RIGHT**
  Select to set the mask frame selected by the AREA SEL parameter.
- ➢ **COLOR**
  Select to set the colors of the mask frames.
- ➢ **TRANSP**
  Select to set the transparency ratio of the mask frames.
- ➢ **MOSAIC**
  Select to set the mask frame mosaic function to ON or OFF.
  -OFF: Mosaic function OFF
  -ON: Mosaic function ON

4.9. DAY/NIGHT

This item is used to set the Day/Night function.

```
┌─────────────────────────────────┐
│  Setup Menu                     │
│                                 │
│  PRIVACY         OFF            │
│  DAY/NIGHT       AUTO  ↵        │
│  NR                    ↵        │
│                                 │
│  CAMERA ID       OFF            │
│                                 │
│  SYNC            INT            │
│  LANGUAGE        ENGLISH        │
│  CAMERA RESET                   │
│                                 │
│  BACK     ↵                     │
│  EXIT     ↵      SAVE ALL       │
└─────────────────────────────────┘
```

Select to set **DAY/NIGHT** to **AUTO**, **COLOR** or **B/W**.

Function	Option
DAY/NIGHT	**AUTO**↵
	COLOR
	B/W

- ➢ **AUTO**
  Day or Night is automatically identified and controlled accordingly.
  When **AUTO**↵ is selected, click **ENTER** to bring up the **DAY/NIGHT** sub-menu for further settings.
- ➢ **COLOR**
  The Day/Night function is set to **OFF**.
- ➢ **B/W**
  The NIGHT mode is established forcibly, and chroma is set to **OFF**.
  When **B/W**↵ is selected, click **ENTER** to bring up the **B/W** sub-menu for further settings.

4.9.1. B/W

Adjust the settings of **B/W**.

Function	Option
BURST	**ON**
	OFF

Select to set whether to output the burst signal when the B/W (NIGHT mode established forcibly) status has been identified.

ON: Burst signal ON

OFF: Burst signal OFF

4.9.2. AUTO

Adjust the settings of **DAY/NIGHT.**

Function	Option
BURST	**ON**
	OFF
DELAY CNT	**0~255**
DAY-> NIGHT	**0~255**
NIGHT-> DAY	**0~255**

➢ **BURST**

Select to set whether to output the burst signal when the Night status has been identified.
- **ON**: Burst signal ON
- **OFF**: Burst signal OFF

➢ **DELAY CNT**

Select to set the Night/Day identification transfer time.
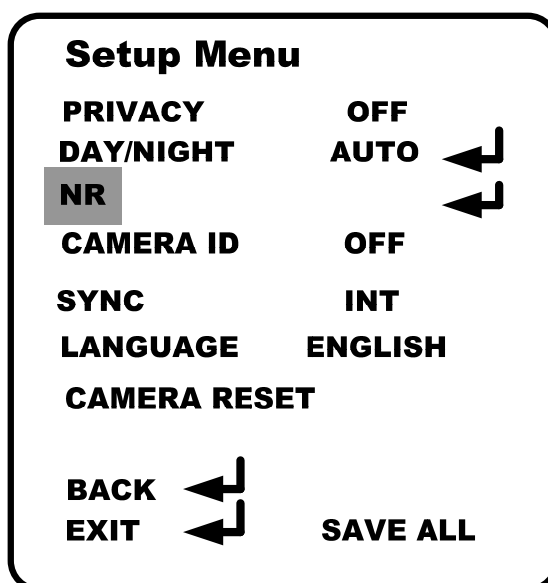
➢ **DAY->NIGHT**

Select to set the threshold for identifying the Night status from the Day status.

➢ **NIGHT->DAY**

Select to set the threshold for identifying the Day status from the Night status.

4.10. NR

This item is used to set the noise reduction.

```
Setup Menu
PRIVACY          OFF
DAY/NIGHT        AUTO  ↵
NR                     ↵
CAMERA ID        OFF

SYNC             INT
LANGUAGE         ENGLISH
CAMERA RESET


BACK  ↵
EXIT  ↵           SAVE ALL
```

Select to bring up the *NR* sub-menu for further settings.

Function	Option
NR MODE	OFF
	Y
	C
	Y/C
Y LEVEL	0~015
C LEVEL	0~015

➢ **NR MODE:** Select to set the 2D NR filter mode.
  - **OFF**: Y and C filters OFF
  - **Y**: Y filter ON
  - **C**: C filter ON
  - **Y/C**: Y and C filters ON
➢ **Y LEVEL**
  Select to set the Y filter strength.
➢ **C LEVEL**
  Select to set the C filter strength.

4.11. CAMERA ID

This item is used to set the camera ID.

```
┌────────────────────────────────┐
│   Setup Menu                   │
│   PRIVACY          OFF         │
│   DAY/NIGHT        AUTO  ↵      │
│   NR                     ↵      │
│   CAMERA ID        OFF         │
│   SYNC             INT         │
│   LANGUAGE         ENGLISH     │
│   CAMERA RESET                 │
│                                │
│   BACK   ↵                     │
│   EXIT   ↵       SAVE ALL      │
└────────────────────────────────┘
```
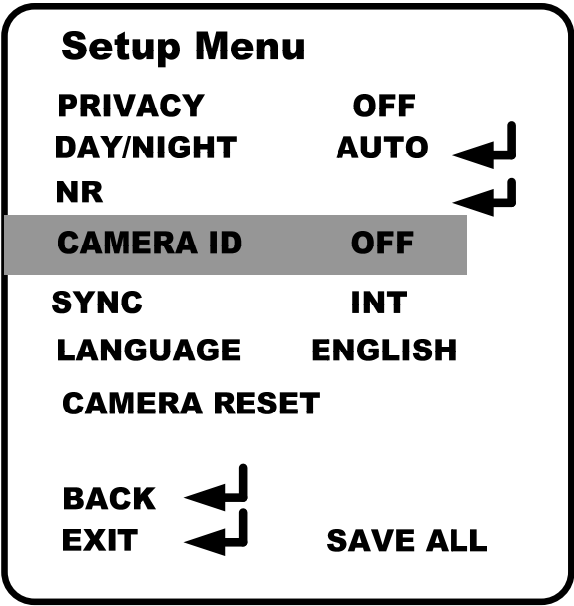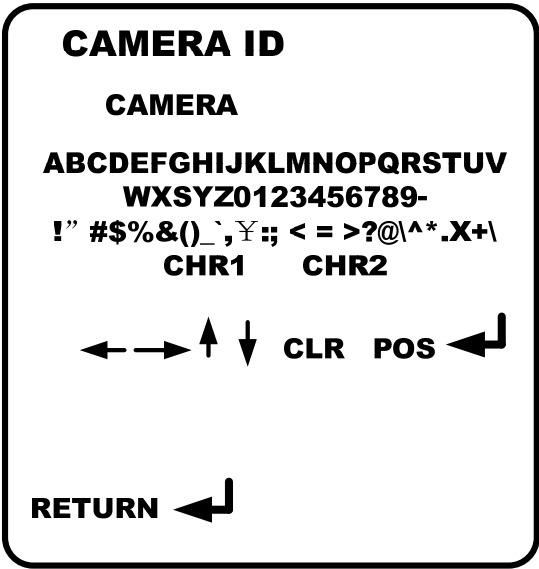
Select to set the camera ID to OFF or ON.

Function	Option
CAMERA ID	OFF
	ON↵

➢ **OFF**
   Camera ID display OFF
➢ **ON**
   Camera ID display ON
   When the **ON**↵ is selected, click **ENTER** to bring up the *CAMERA ID* sub-menu for further settings.

4.11.1. CAMERA ID ON

```
┌────────────────────────────────┐
│   CAMERA ID                    │
│      CAMERA                    │
│                                │
│   ABCDEFGHIJKLMNOPQRSTUV       │
│      WXSYZ0123456789-          │
│   !" #$%&()_`,¥:; < = >?@\^*.X+\│
│         CHR1     CHR2          │
│                                │
│   ← → ↑ ↓  CLR  POS  ↵         │
│                                │
│   RETURN  ↵                    │
└────────────────────────────────┘
```

- ➢ ← →↑↓

  Select ←, →, ↑ or ↓ with the character selection cursor, and click the **ENTER** button to move the cursor in the direction of the arrow.
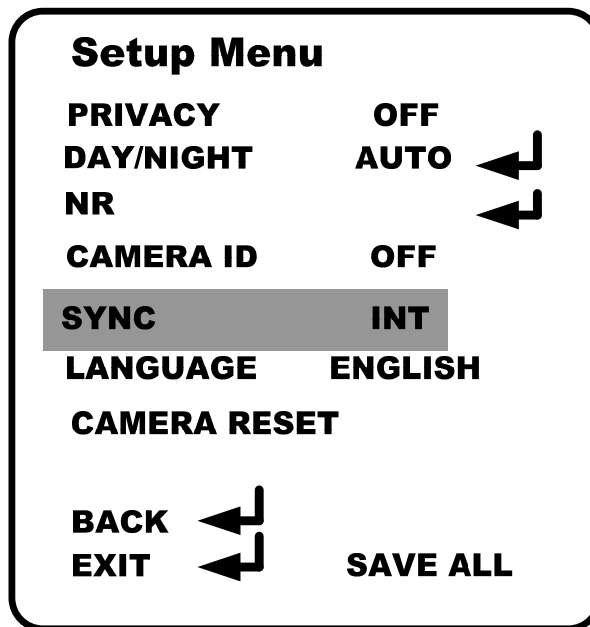- ➢ **CLR**

  Select to clear one letter of the input.
- ➢ **POS**

  Adjust the position of the camera ID.

4.12. SYNC(synchronizing)

This item is the synchronizing system and this mode is fixed, so can not change

```
Setup Menu
PRIVACY          OFF
DAY/NIGHT        AUTO    ↵
NR                       ↵
CAMERA ID        OFF
SYNC             INT
LANGUAGE         ENGLISH
CAMERA RESET


BACK    ↵
EXIT    ↵          SAVE ALL
```

.

4.13. LANGUAGE

This item is used to select the language in which to display the internal OSD menu.

Setup Menu

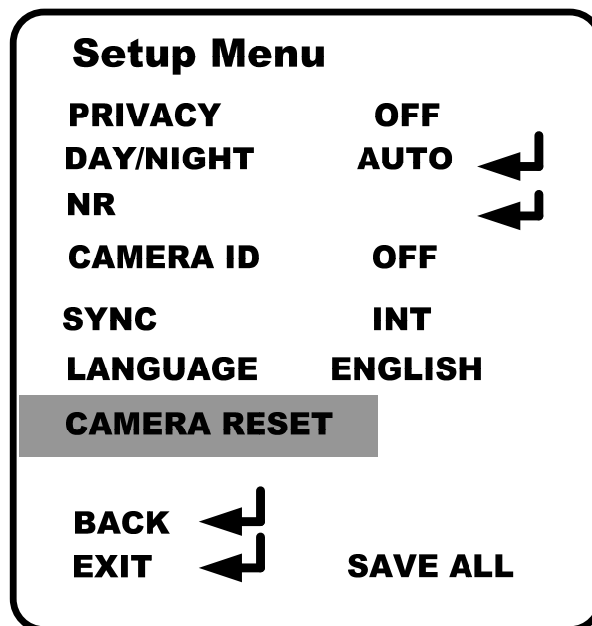|	
PRIVACY	OFF
DAY/NIGHT	AUTO ↵
NR	↵
CAMERA ID	OFF
SYNC	INT
LANGUAGE	ENGLISH
CAMERA RESET	

↵
↵   SAVE ALL
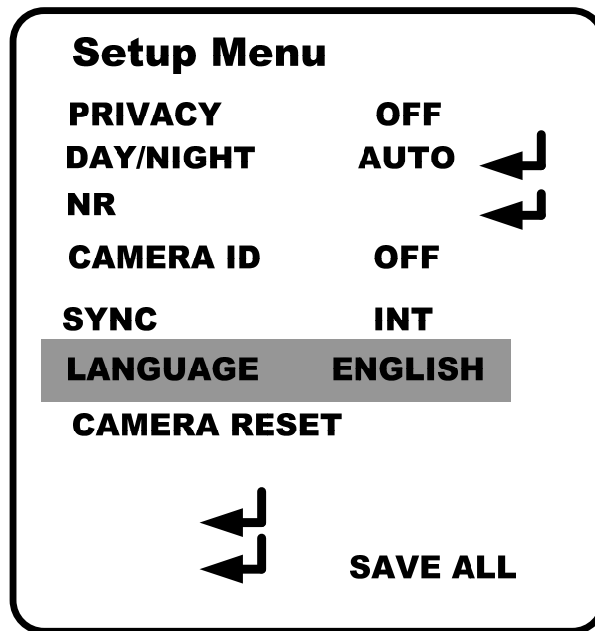
Select to set the language displayed in the OSD menus.
    The menus will be changed to the selected language in real time.

Function	Option
LANGUAGE	ENGLISH
	日本語
	DEUTSCH
	FRANCAIS
	РУССКИЙ
	PORTUGUÊS
	ESPAÑOL
	Chinese

4.14.   CAMERA RESET

Click to restore all the settings to the default values.

```
┌─────────────────────────────────────┐
│   Setup Menu                        │
│                                     │
│   PRIVACY          OFF              │
│   DAY/NIGHT        AUTO    ◄┘        │
│   NR                       ◄┘        │
│   CAMERA ID        OFF              │
│                                     │
│   SYNC             INT              │
│   LANGUAGE      ENGLISH             │
│ ▓▓CAMERA RESET▓▓▓▓▓▓▓▓▓▓            │
│                                     │
│   BACK    ◄┘                        │
│   EXIT    ◄┘        SAVE ALL        │
└─────────────────────────────────────┘
```

4.15. SAVE ALL

Click to save all the settings made.

NOTE:
There will be no prompt windows while the settings are being saved.

4.16. EXIT

Click to exit the OSD menu.

NOTE:
Before exit the OSD menu, please click **SAVE ALL<┘** to save all the settings made. Fail to do that, all the settings will not take effect once the power is reconnected.